

What is claimed is:

1. A seat apparatus comprising, a pair of seats that can move in the opposite directions;

a pair of moving plates each attached under the seats
5 to move in the opposite directions;

a base supporting the moving plates to move in the opposite directions;

a shaft attached on the upper side of the base to rotate;

a cylindrical shaped gap controller attached in the
10 middle of the shaft with a pair of guidance grooves that have one narrow end and the other wide end;

a motoring device attached on one end of the shaft to rotate the shaft;

a pair of connectors with the one ends assembled on the
15 guidance grooves on the gap controller and the other ends fixed on the moving plates at the corresponding positions to the guidance grooves of the gap controller; and

a guiding mechanism to direct the movement of the moving plates on the base in the direction of the shaft and a
20 distinctive characteristic of controlling the gap between the seats and a pair of moving plates attached to the guidance grooves through a pair of connectors by turning the shaft clockwise/counterclockwise with the above motoring device.

25 2. The guiding device in the Claim 1 has its one end attached to the shaft to slide along the shaft and the upper end.

3. A seat apparatus with the guiding device in Claim 1 comprising a pair of roller grooves formed parallel to the direction of the shaft on the upper section of the base in order to coordinate the path of movement of the moving plates
5 with the direction of the shaft, and many rollers attached under the moving plates to be inserted in the roller grooves for the movement.

4. A seat apparatus with the guiding device that can
10 control the gap between the seats in Claim 1 comprising the rails formed in the front and the back of the base and many rotating rollers attached on the moving plates at the corresponding positions to the rail.

15 5. A seat apparatus with a gap controlling mechanism in Claim 1 comprising additional seats either in front or back of the base.

6. A seat apparatus with a gap controlling mechanism
20 in Claim 1 comprising a shock absorbing device between the moving plate and the seat through a hinge on the outer edge of the moving plate and the seat.

7. A seat apparatus with a shock absorbing device in
25 Claim 6 comprising either leaf springs or coil springs as shock absorber.

8. A seat apparatus with a gap controlling mechanism comprising, two pairs of moving plates that can move independently in the opposite directions;

two pairs of moving plates attached under the seats that
5 moves independently in the opposite directions;

a base supporting the pairs of moving plates to move independently in the opposite directions;

two shafts attached to rotate on the upper section of the base;

10 two cylindrically shaped gap controllers attached in the middle of the shafts that have one narrow end and the other wide end; two motoring devices attached at one ends of the shafts that can rotate each shaft;

two pairs of connectors with the one ends attached on
15 the guidance grooves on the gap controllers that have the other ends attached on the moving plates at the positions corresponding to the guidance grooves of the gap controllers; and

two guiding devices that direct the movement of the
20 moving plates along the direction of the shafts.

9. A gap controlling seat apparatus with two guiding devices in Claim 8 comprising many supporting blocks with the upper ends attached on the bottom of the moving plates
25 that have the other ends attached to slide on each shaft.

10. A gap controlling seat apparatus with two guiding

devices in Claim 8 comprising two pairs of roller grooves
formed parallel to the path of movement of each moving plate
and many rollers attached under each moving plate that are
inserted in the roller grooves to slide the moving plates
5 over the base.

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